



Associates, Inc.

Environmental Monitoring
Pipeline Services
Operations & Maintenance

December 26, 2018

Mr. David Thebearge
Boston Concrete Corporation
706 Broadway St.
Lowell, MA 01854

Re: NPDES Quarterly Stormwater Visual Examination Report and Quarterly Benchmark Results

Dear Mr. David Thebearge,

Enclosed please find the Stormwater Visual Examination Report, Analytical Reports and associated Chain of Custody documentation for Boston Concrete in Lowell, MA. This site was visited on December 16, 2018. Quarterly benchmark were also collected at this time. Please call me if you have any questions or require any additional information. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read "John D'Andrea", is written over the typed name.

John D'Andrea
Division Manager – Environmental Monitoring

EST Associates, Inc.
51 Fremont Street
Needham, MA 02494
Phone (781) 455-0003
Fax (781) 455-8336
www.estassociates.com

Chain of Custody Record

Container Type	Sample Type
P - Plastic	1. Wastewater
G - Glass	2. Groundwater
V - VOA	3. Soil
B - Bacteria	4. Drinking Water
	5. Surface Water
	6. Storm Water
	7. Other _____

Laboratory:

N/A	N/A
-----	-----

Lab Invoice To: N/A

Lab Report To:

EST Invoice To: Boston Concrete

7222-Q#-00

Q# SQ00316

Signed

Client: Boston Concrete Corporation

Address: 706 Broadway St.

Lowell MA 01854-

Contact: David Thebearge

Phone #: (978) 937-7222

Fax #:

☐ Rush ____ Day Turnaround

Description: Stormwater Quarterly Visuals

Site: Boston Concrete Corporation
Address: 706 Broadway St.
Lowell MA 01830
Contact: David Theberge

Phone #: (978) 937-7222

Description: Stormwater Quarterly Visuals

[illegible]

Storm Water
Quarterly Visual Examination Report
Boston Concrete - Lowell, MA

Facility Name: *Boston Concrete*

Date / Time: *12/16/18* *1910*

Personnel Involved: *Matt Gould*

Outfall: *001*

Date of Last Rainfall: *12/2/18*

Amount of Rain (inches) *0.50*

Duration of Storm: *5 hours*

Nature of Discharge (Runoff or Snowmelt or Both): *Runoff*

Record your visual observations of the sample quality in the space provided below.

Color: *Light brown*

Odor: *None detected*

Clarity: *Cloudy*

Floating Solids: *None detected*

Settled Solids: *Fine sand / silt*

Suspended Solids: *Fine particulate*

Foam: *None detected*

Oily Sheen: *None detected*

Other Observations: *No obvious source of pollution*

Sources of Pollution / Follow up Inspections:

Identify potential sources of pollution identified above and results of follow up inspections
(follow up inspections must be performed to trace any sources of pollution identified here)

Signature

Matt Gould

Associates, Inc.

EST Associates, Inc.
51 Fremont Street
Needham, MA 02494
Phone (781) 455-0003
Fax (781) 455-8336
www.estassociates.com

Chain of Custody Record

Laboratory:

Alpha Analytical Labs
(508) 898-9220

(508) 898-9220

Lab Invoice To: EST

EST

Lab Report To:

See Comments

Container Type
P - Plastic
G - Glass
V - VOA
B - Bacteria

Sample Type

1. Wastewater
2. Groundwater
3. Soil
4. Drinking Water
5. Surface Water
6. Storm Water
7. Other _____

B - Bacteria

4. Drinking Water

Site: Boston Concrete Corporation

Address: 706 Broadway St.

Lowell MA 01854-

Contact: David Theberge

Phone #: (978) 937-7222

Description: *Quarterly Benchmark Sampling*

Client: Boston Concrete Corporation

Address: 706 Broadway St.

Lowell MA 01854-

Contact: David Thebearge

Phone #: (978) 937-7222

Fax #:

☐ Rush _____ Day Turnaround

EST Invoice To: Boston Concrete

7222-Q#-00

Q# SQ00316
Signed

[illegible]



ANALYTICAL REPORT

Lab Number:	L1851873
Client:	EST Associates, Inc. 51 Fremont Street Needham, MA 02494
ATTN:	John D'Andrea
Phone:	(781) 455-0003
Project Name:	BOSTON CONC. QRTLY BENCHMARK
Project Number:	BOSTON CONCRETE CORP
Report Date:	12/26/18

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Serial_No:12261814:12

Project Name: BOSTON CONC. QRTL Y BENCHMARK
Project Number: BOSTON CONCRETE CORP

Lab Number: L1851873
Report Date: 12/26/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1851873-01	OUTFALL 001	WATER	706 BROADWAY ST., LOWELL, MA	12/12/18 19:10	12/17/18

Project Name: BOSTON CONC. QRTLY BENCHMARK
Project Number: BOSTON CONCRETE CORP

Lab Number: L1851873
Report Date: 12/26/18

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEX data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Amita Naik

Title: Technical Director/Representative

Date: 12/26/18

METALS

Project Name: BOSTON CONC. QRTLY BENCHMARK

Lab Number: L1851873

Project Number: BOSTON CONCRETE CORP

Report Date: 12/26/18

SAMPLE RESULTS

Lab ID: L1851873-01

Date Collected: 12/12/18 19:10

Client ID: OUTFALL 001

Date Received: 12/17/18

Sample Location: 706 BROADWAY ST., LOWELL, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Iron, Total	24.0		mg/l	0.050	--	1	12/21/18 12:00	12/26/18 10:02	EPA 3005A	19,200.7	LC



Project Name: BOSTON CONC. QRTLY BENCHMARK

Lab Number: L1851873

Project Number: BOSTON CONCRETE C(

Report Date: 12/26/18

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1192093-1									
Iron, Total	ND	mg/l	0.050	--	1	12/21/18 12:00	12/26/18 09:22	19,200.7	LC

Prep Information

Digestion Method: EPA 3005A



Lab Control Sample Analysis

Batch Quality Control

Project Name: BOSTON CONC. QRTLY BENCHMARK

Lab Number: L1851873

Project Number: BOSTON CONCRETE CORP

Report Date: 12/26/18

Parameter	LCS		LCSD		%Recovery		Limits		RPD		RPD Limits	
	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual	RPD	Qual	RPD	Qual
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1192093-2												
Iron, Total	102		-		85-115		-		-		-	

Matrix Spike Analysis**Batch Quality Control****Project Name:** BOSTON CONC. QRTLY BENCHMARK**Lab Number:** L1851873**Project Number:** BOSTON CONCRETE CORP**Report Date:** 12/26/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	MSD Recovery Qual	Recovery Limits	RPD Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1192093-3 QC Sample: L1852319-01 Client ID: MS Sample										
Iron, Total	0.105	1	1.09	98	-	-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: BOSTON CONC. QRTLY BENCHMARK
Project Number: BOSTON CONCRETE CORP

Lab Number: L1851873
Report Date: 12/26/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1192093-4 QC Sample: L1852319-01 Client ID: DUP Sample						
Iron, Total	0.105	0.101	mg/l	4		20

INORGANICS & MISCELLANEOUS

Project Name: BOSTON CONC. QRTLY BENCHMARK

Lab Number: L1851873

Project Number: BOSTON CONCRETE CORP

Report Date: 12/26/18

SAMPLE RESULTS

Lab ID: L1851873-01

Date Collected: 12/12/18 19:10

Client ID: OUTFALL 001

Date Received: 12/17/18

Sample Location: 706 BROADWAY ST., LOWELL, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	970		mg/l	34	NA	6.7	-	12/18/18 12:00	121,2540D	DR



Project Name: BOSTON CONC. QRTLY BENCHMARK

Lab Number: L1851873

Project Number: BOSTON CONCRETE CORP

Report Date: 12/26/18

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1190549-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	12/18/18 12:00	121,2540D	DR



Lab Duplicate Analysis

Batch Quality Control

Project Name: BOSTON CONC. QRTLY BENCHMARK
Project Number: BOSTON CONCRETE CORP

Lab Number: L1851873
Report Date: 12/26/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1190549-2 QC Sample: L1851908-03 Client ID: DUP Sample						
Solids, Total Suspended	230	230	mg/l	0		29

Project Name: BOSTON CONC. QRTLY BENCHMARK
Project Number: BOSTON CONCRETE CORP

Serial No:12261814:12
Lab Number: L1851873
Report Date: 12/26/18

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information
Cooler A
Custody Seal Absent

Container Information		Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
Container ID	Container Type							
L1851873-01A	Plastic 250ml HNO3 preserved	<2	<2	3.4	Y	Absent		FE-UI(180)
L1851873-01B	Plastic 950ml unpreserved	NA		3.4	Y	Absent		TSS-2540(7)



Project Name: BOSTON CONC. QRTLY BENCHMARK

Lab Number: L1851873

Project Number: BOSTON CONCRETE COR

Report Date: 12/26/18

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: Data Usability Report



Project Name: BOSTON CONC. QRTLY BENCHMARK**Lab Number:** L1851873**Project Number:** BOSTON CONCRETE COR**Report Date:** 12/26/18**Data Qualifiers**

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: BOSTON CONC. QRTL Y BENCHMARK
Project Number: BOSTON CONCRETE CORP

Lab Number: L1851873
Report Date: 12/26/18

REFERENCES

- 19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO₃-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH₃-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO₃-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO₄-E,**

SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



Chain of Custody Record

Serial_No:12261814:12

EST Associates, Inc.
51 Fremont Street
Needham, MA 02494
Phone (781) 455-0003
Fax (781) 455-8336
www.estassociates.com

Laboratory:
Alpha Analytical Labs
(508) 898-9220

Container Type

P - Plastic
G - Glass
V - VOA
B - Bacteria

Sample Type

Sample type

1. Wastewater 5. Surface Water
2. Groundwater 6. Storm Water
3. Soil 7. Other _____
4. Drinking Water

Lab Invoice To: EST

Item	See Comments
1-4	

EST Invoice To: Boston Concrete

7222-04-00

Q# SQ00316
Signed

Site: Boston Concrete Corporation

Address: 706 Broadway St.

Lowell MA 01854-

Contact: David Theberge

Phone #: (978) 937-7222

Description: *Quarterly Benchmark Sampling*

Client: Boston Concrete Corporation

Address: 706 Broadway St.

Lowell MA 01854-

Contact: David Thebeerge

Phone #: (978) 937-7222

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☐ Rush _____ Day Turnaround[illegible]

61851873

EST
Associates, Inc.

Chain of Custody Record

Container Type

P - Plastic
G - Glass
V - VOA
B - Bacteria

Sample Type

1. Wastewater
2. Groundwater
3. Soil
4. Drinking Water
5. Surface Water
6. Storm Water
7. Other

N/A	N/A
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Lab Invoice To: N/A

Lab Report To:

EST Invoice To: Boston Concrete

7222-Q#-00
Q# SQ00316
Signed

Client: Boston Concrete Corporation

Address: 706 Broadway St.

Lowell MA 01854-

Contact: David Thebeerge

Phone #: (978) 937-7222

Fax #:

☐ Rush Day Turnaround

Description: *Stormwater Quarterly Visuals*

[illegible]

***All samples chilled to 4 degrees celsius.**

L851873

Storm Water Quarterly Visual Examination Report Boston Concrete - Lowell, MA	
Facility Name: <i>Boston Concrete</i>	
Date / Time: <i>12/16/18</i> <i>1910</i>	Personnel Involved: <i>Matt Goss</i>
Outfall: <i>001</i>	
Amount of Rain (inches)	
Duration of Storm:	
Nature of Discharge (Runoff or Snowmelt or Both): <i>Runoff</i>	
Record your visual observations of the sample quality in the space provided below.	
Color: <i>light brown</i>	
Odor: <i>None detected</i>	
Clarity: <i>Cloudy</i>	
Floating Solids: <i>None detected</i>	
Settled Solids: <i>Fine sand / silt</i>	
Suspended Solids: <i>Fine particulate</i>	
Foam: <i>None detected</i>	
Oily Sheen: <i>None detected</i>	
Other Observations: <i>No obvious source of pollution</i>	
Sources of Pollution / Follow up Inspections: Identify potential sources of pollution identified above and results of follow up inspections (follow up inspections must be performed to trace any sources of pollution identified here)	
Signature <i>[Signature]</i>	